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SOURCE Krasnyy Flot.

100,000-KILOWATT TURBINE AT LENINGRAD PLANT
IS MOST POWERFUL OF ITS TYPE

The 100,000-kilowatt high-speed turbine built by the Leningrad Metal Plant imeni Stalin is the most powerful of its type in the world. Steam enters at a temperature of 480 degrees, under 90 atmospheres' pressure. The aggregate actually consists of a high-pressure and a low-pressure turbine on a single shaft. It was completely built from metal developed by Soviet metallurgical plants.

In building the turbine, the plant obviated a great deal of casting and patternmaking work by mastering the welding of plates 100 millimeters thick.

For the first time, blades having a 665-millimeter-long working part were used on a rotor having an average diameter of 2,000 millimeters. The peripheral speed of the blading crown reaches 420 meters per second, considerably higher than that of earlier turbines.

In the manufacture of the turbine, anode-mechanical cutting and high-speed milling were applied. Advanced stamping methods in the manufacture of the blades saved the plant over 12 tons of stainless steel.

While it took 3½ months to machine the rotor of the 100,000-kilowatt turbine, it took only 18 days to machine the rotor of the 150,000-kilowatt turbine, [now being built at the plant], since high-speed machining methods were followed.

the Leningrad Metal Plant imeni Stalin has built four 100,000-kilowatt turbines since the war.]

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